INTRODUCTION TO
THE HCUP STATE AMBULATORY SURGERY AND SERVICES DATABASES
(SASD)

These pages provide only an introduction to the SASD package.
Full documentation is provided online at the HCUP User Support Web site:

http://www.hcup-us.ahrq.gov

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DATA USE AGREEMENT FOR THE STATE DATABASES ......................................................................................... 17
All users of the SASD must sign a data use agreement. The signed data use agreements must be kept on file by the organization that purchased the SASD data.†

Authorized users of HCUP data agree to the following limitations;‡

- Will not use the data for any purpose other than research or aggregate statistical reporting
- Will not re-release any data to unauthorized users
- Will not identify or attempt to identify any individual
- Will not link HCUP data to data from another source that identifies individuals
- Will not report information that could identify individual establishments (e.g., hospitals)
- Will not use the data concerning individual establishments for commercial or competitive purposes involving those establishments
- Will not use the data to determine rights, benefits, or privileges of individual establishments
- Will not identify or attempt to identify any establishment when its identity has been concealed on the database
- Will not contact establishments included in the data
- Will not attribute to data contributors any conclusions drawn from the data
- Must acknowledge the "Healthcare Cost and Utilization Project, (HCUP)" in reports, as described in the Data Use Agreement

Any violation of the limitations in the data use agreement is punishable under Federal law by a fine of up to $10,000 and up to 5 years in prison. Violations may also be subject to penalties under State statutes.

†A copy of the Data Use Agreement is included at the end of this document and is also available online at the HCUP User Support Web site: http://www.hcup-us.ahrq.gov.

‡Specific provisions are detailed in the Data Use Agreement for HCUP State Databases.
HCUP CONTACT INFORMATION

The Data Use Agreement for the State Databases and the HCUP Data Use Agreement Training Tool are available on the AHRQ-sponsored HCUP User Support (HCUP-US) Web site:

http://www.hcup-us.ahrq.gov

After completing the on-line training tool, please submit signed data use agreements to HCUP at:

HCUP Central Distributor  
Social & Scientific Systems, Inc.  
8757 Georgia Avenue, 12th Floor  
Silver Spring, MD 20910  
E-mail: HCUPDistributor@AHRQ.gov  
Fax: (866) 792-5313 (toll free)

For technical assistance:

Visit the AHRQ-sponsored HCUP User Support Web site at:

http://www.hcup-us.ahrq.gov

For questions on the overall project, send an e-mail to HCUP User Support at:

hcup@ahrq.gov

For questions related to ordering databases, contact the HCUP Central Distributor at:

HCUP Central Distributor  
Phone: (866) 556-4287 (toll free)  
Support Hours: Monday–Friday, 9:00 a.m. to 5:00 p.m. (ET)  
If the HCUP Central Distributor is not immediately available, please leave a message on the voice mail. Your call will be returned within one business day.

Fax: (866) 792-5313 (toll free)  
E-mail: HCUPDistributor@AHRQ.gov

We would like to receive your feedback on the HCUP data products.

Our Internet address for user feedback is:

hcup@ahrq.gov
HEALTHCARE COST AND UTILIZATION PROJECT—HCUP
A FEDERAL-STATE-INDUSTRY PARTNERSHIP IN HEALTH DATA
Sponsored by the Agency for Healthcare Research and Quality

The Agency for Healthcare Research and Quality and
the staff of the Healthcare Cost and Utilization Project (HCUP) thank you for
purchasing the HCUP State Ambulatory Surgery and Services Databases (SASD)

HCUP State Ambulatory Surgery and Services Databases (SASD)

ABSTRACT

The State Ambulatory Surgery and Services Databases (SASD) are part of the Healthcare Cost and
Utilization Project (HCUP), sponsored by the Agency for Healthcare Research and Quality (AHRQ).

The HCUP State Ambulatory Surgery and Services Databases (SASD) are a powerful set of databases
that include encounter-level data for ambulatory surgeries and may also include various types of
outpatient services such as observation stays, lithotripsy, radiation therapy, imaging, chemotherapy, and
labor and delivery. The specific types of ambulatory surgery and outpatient services included in each
SASD vary by State and data year.

- The SASD include encounter-level data for ambulatory surgery and other outpatient services from
  hospital-owned facilities in participating States that are translated into a uniform format to facilitate
  multistate comparisons and analyses.

- All SASD include data from hospital-owned ambulatory surgery facilities. In addition, some States
  include data from facilities not owned by a hospital.

- The databases contain a core set of clinical and nonclinical information on all patients, regardless of
  payer, including those covered by Medicare, Medicaid, private insurance, and the uninsured.

- In addition to the core set of uniform data elements common to all SASD, some include other
  elements such as the patient's race.

Researchers and policymakers use the SASD to compare inpatient surgery data with ambulatory surgery
data; identify State-specific trends in ambulatory surgery utilization, access, charges, and outcomes; and
conduct market-area research and small-area variation analyses.

The individual State databases are in the same HCUP uniform format and represent 100 percent of
records processed by AHRQ. However, the participating data organizations control the release of
specific data elements. AHRQ is currently assisting the data organizations in the release of the 1997–
2013 SASD.

The SASD can be linked to hospital-level data from the American Hospital Association's Annual Survey of
Hospitals and county-level data from the Bureau of Health Professions' Area Resource File, except in
States that do not allow the release of hospital identifiers.

Eighteen of the data organizations participating in the HCUP have agreed to release their SASD files
through the HCUP Central Distributor under the auspices of AHRQ. Uses are limited to research and
aggregate statistical reporting.
INTRODUCTION TO THE HCUP STATE AMBULATORY SURGERY AND SERVICES DATABASES (SASD)

OVERVIEW OF THE SASD

The Healthcare Cost and Utilization Project (HCUP) State Ambulatory Surgery and Services Databases (SASD) consist of individual data files from data organizations in 33 participating States. The SASD include encounter-level data for ambulatory surgeries and may also include various types of outpatient services such as observation stays, lithotripsy, radiation therapy, imaging, chemotherapy, and labor and delivery. The specific types of ambulatory surgery and outpatient services included in each SASD vary by State and data year. All SASD include data from hospital-owned ambulatory surgery facilities. In addition, some States include data from facilities not owned by a hospital. The designation of a facility as hospital-owned is specific to its financial relationship with a hospital that provides inpatient care and is not related to its physical location. Hospital-owned ambulatory surgery and other outpatient care facilities may be contained within the hospital, physically attached to the hospital, or located in a different geographic area.

The SASD are annual, State-specific files that share a common structure and common data elements. Most data elements are coded in a uniform format across all States. In addition to the core set of uniform data elements, the SASD include State-specific data elements or data elements available only for a limited number of States. The uniform format of the SASD helps facilitate cross-State comparisons. In addition, the SASD are well suited for research that requires complete enumeration of hospital-based ambulatory surgery within market areas or States.

Eighteen of the 33 data organizations that participate in HCUP have agreed to release their State-specific files through the HCUP Central Distributor under the auspices of AHRQ. The individual State databases are in the same HCUP uniform format. In general, they represent 100 percent of records processed by AHRQ. However, the participating data organizations control the release of specific data elements. AHRQ is currently assisting the data organizations in the release of the 1997–2013 SASD.

SASD data sets are currently available for multiple States and years. Each release of the SASD includes:

- Data in American Standard Code for Information Interchange (ASCII) format on a compact disc with read-only memory (CD-ROM).
- Encounter-level data for ambulatory surgery and other outpatient services from hospital-owned facilities in participating States. In addition, some States provide ambulatory surgery and outpatient services from nonhospital-owned facilities.
- American Hospital Association (AHA) Linkage File to link the SASD to data from the AHA Annual Survey of Hospitals. This is only available for States that allow the release of hospital identifiers.

SASD documentation and tools—including file specifications, programming source code for loading ASCII data into SAS (SAS Institute Inc.; Cary, NC) and SPSS (IBM Corp.; Somers, NY), and value labels—are available online at the HCUP User Support Web site (http://www.hcup-us.ahrq.gov).

Starting with the 2006 SASD, the AHA Linkage files are available via the HCUP User Support Web site (http://www.hcup-us.ahrq.gov). The AHA Linkage files may not be available when the encounter-level database is released.
How the HCUP SASD Differ from State Data Files

The SASD available through the HCUP Central Distributor differ from the data files available from the data organizations in the following ways:

- Data elements available on the files
- Coding of data elements

Because the data organizations dictate the data elements that may be released through the HCUP Central Distributor, the data elements on the SASD are a subset of the data collected by the corresponding data organizations. HCUP uniform coding is used on most data elements on the SASD. A few State-specific data elements retain the original values provided by the respective data organizations.

What Types of Facilities Are Included in the SASD?

All SASD include data from hospital-owned ambulatory surgery facilities. In addition, some States include data from facilities not owned by a hospital. The designation of a facility as hospital-owned is specific to its financial relationship with a hospital that provides inpatient care and is not related to its physical location. Hospital-owned ambulatory surgery and other outpatient care facilities may be contained within the hospital, physically attached to the hospital, or located in a different geographic area. The designation as hospital-owned means that HCUP can identify that the hospital is billing for this service. Table 1 lists the types of facilities by State.

Table 1. Types of Facilities in the SASD

<table>
<thead>
<tr>
<th>State</th>
<th>Hospital-Owned Ambulatory Surgery Facilities</th>
<th>Nonhospital-Owned Ambulatory Surgery Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Colorado</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Florida</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Iowa</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Kentucky</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Maine</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Maryland</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Michigan</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Nebraska</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Nevada</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>New Jersey</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>New York</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Oregon</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>South Carolina</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Utah</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Vermont</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Starting in data year 1998, the HCUP data element FREESTANDING can be used to identify hospital-owned facilities with ambulatory surgery and possibly other outpatient care data in the SASD. A facility is considered hospital-owned (FREESTANDING = 0) if any one of the following is true:
• The facility is listed in the American Hospital Association (AHA) Annual Survey Database.
• The facility is not listed in the AHA Survey, but the facility provides inpatient discharge data to HCUP.
• Documentation provided by the data source clearly indicates that the facility is hospital-owned.

If the facility in the SASD does not meet any of the above criteria, it is marked as not being owned by a hospital (FREESTANDING = 1). Because not all hospitals report to the AHA, there is a possibility that some facilities marked with FREESTANDING=1 are hospital-owned.

**What is the File Structure of the SASD in the 2005–2013 Files?**

Based on the availability of data elements across States, data elements included in the SASD are structured as follows:

- Core file
- Charges file
- AHA Linkage file
- Diagnosis and Procedure Groups file

The **Core file** contains:

- Core data elements that form the nucleus of the SASD
- State-specific data elements intended for limited use

Core data elements meet at least one of the following criteria:

- Are available from all or nearly all data sources
- Lend themselves to uniform coding across sources
- Are needed for traditional applications (e.g., length of stay, patient age)

State-specific data elements meet at least one of the following criteria:

- Are available from a limited number of sources
- Do not lend themselves to uniform coding across sources
- Are not needed for traditional applications

The Core file is an encounter-level file with one observation per discharge abstract.

The **Charges file** contains detailed charge information. There are three kinds of Charges files:

1) **Line item detail** in which a submitted charge pertains to a specified revenue center, and there may be multiple charges reported for the same revenue center. This type of Charges file includes multiple records per discharge abstract. Each record includes the following information for one service:
   a. Revenue center (REVCODE)
   b. Charge (CHARGE)
   c. Unit of service (UNITS)
   e. Day of service (SERVDAY) for some files

For example, if a patient had five laboratory tests, there are five records in the Charges file with information on the charge for each laboratory test. Information from this type of Charges file may be combined with the Core file by the unique record identifier (KEY), but there is not a one-to-one correspondence of records.
2) **Summarized detail** in which charge information is summed within the revenue center. This type of Charges file includes one record per discharge abstract. Each record contains three corresponding arrays with the following information:
   a. Revenue center (REVCDn)
   b. Total charge for the revenue center (CHGn)
   c. Total units of service for the revenue center (UNITn)

For example, if a patient had five laboratory tests, REVCD1 would include the revenue code for laboratory, CHG1 would include the total charge for the five tests, and UNIT1 would be five. To combine data elements between this type of Charges file and the Core file, merge the files by the unique record identifier (KEY). There will be a one-to-one correspondence of records.

3) **Collapsed detail** in which charge information is summed across revenue centers. This type of Charges file includes one record per discharge abstract. Each record contains an array of collapsed charges (CHGn).

Consider the example of a patient that had five laboratory tests from different revenue centers in the range of 300 to 319. CHG1, which was predefined as Laboratory Charges for revenue centers 300–319, would include the total charge for the five tests; however, there is no detail on which specific revenue centers were used. To combine data elements between this type of Charges file and the Core file, merge the files by the unique record identifier (KEY). There will be a one-to-one correspondence of records.

Refer to the Description of Data Elements online at the HCUP User Support Web site ([http://www.hcup-us.ahrq.gov](http://www.hcup-us.ahrq.gov)) for more information on the charge information from the different States.

The **AHA Linkage file** contains AHA linkage data elements that allow the SASD to be used in conjunction with the AHA Annual Survey of Hospitals’ data files. These files contain information about hospital characteristics and are available for purchase through the AHA. Because the data organizations in participating States determine whether the AHA linkage data elements may be released through the HCUP Central Distributor with the SASD, not all SASD include AHA linkage data elements.

Starting with the 2006 SASD, the AHA Linkage files are available via the HCUP User Support Web site ([http://www.hcup-us.ahrq.gov](http://www.hcup-us.ahrq.gov)). The AHA Linkage files may not be available when the encounter-level database is released.

The AHA Linkage file is a hospital-level file with one observation per hospital or facility. To combine encounter-level files with the hospital-level file (AHA Linkage file), merge the files by the hospital identifier provided by the data source (DSHOSPID), but be careful of the different levels of aggregation. For example, the Core file may contain 5,000 ambulatory surgery records for DSHOSPID “A,” but the Hospital file contains only 1 record for DSHOSPID “A.”

**Diagnosis and Procedure Groups Files** are encounter-level files that contain data elements from AHRQ software tools. They are designed to facilitate the use of the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) diagnostic and procedure information in the HCUP databases. The unit of observation is an outpatient record. The HCUP unique record identifier (KEY) provides the linkage between the Core files and the Diagnosis and Procedure Groups files. These files are available beginning with the 2005 SASD.
What is the File Structure of the SASD in the 1998–2004 Files?

Based on the availability of data elements across States, data elements included in the SASD are structured as follows:

- Core file
- Charges file
- AHA Linkage file

The **Core file** contains:

- Core data elements that form the nucleus of the SASD
- State-specific data elements intended for limited use

Core data elements meet at least one of the following criteria:

- Are available from all or nearly all data sources
- Lend themselves to uniform coding across sources
- Are needed for traditional applications (e.g., length of stay, patient age)

State-specific data elements meet at least one of the following criteria:

- Are available from a limited number of sources
- Do not lend themselves to uniform coding across sources
- Are not needed for traditional applications

The Core file is an encounter-level file with one observation per discharge abstract.

The **Charges file** contains detailed charge information. There are three kinds of Charges files:

1) *Line item detail* in which a submitted charge pertains to a specified revenue center, and there may be multiple charges reported for the same revenue center. This type of Charges file includes multiple records per discharge abstract. Each record includes the following information for one service:
   a. Revenue center (REVCODE)
   b. Charge (CHARGE)
   c. Unit of service (UNITS)
   d. CPT/HCPCS codes (CPTHCPCS)
   e. Day of service (SERVDAY) for some files

   For example, if a patient had five laboratory tests, there are five records in the Charges file with information on the charge for each laboratory test. Information from this type of Charges file may be combined with the Core file by the unique record identifier (KEY), but there is not a one-to-one correspondence of records.

2) *Summarized detail* in which charge information is summed within the revenue center. This type of Charges file includes one record per discharge abstract. Each record contains three corresponding arrays with the following information:
   a. Revenue center (REVCDn)
   b. Total charge for the revenue center (CHGn)
   c. Total units of service for the revenue center (UNITn)

   For example, if a patient had five laboratory tests, REVCD1 would include the revenue code for laboratory, CHG1 would include the total charge for the five tests, and UNIT1 would be five. To combine data elements between this type of Charges file and the Core file, merge
the files by the unique record identifier (KEY). There will be a one-to-one correspondence of records.

3) **Collapsed detail** in which charge information is summed across revenue centers. This type of Charges file includes one record per discharge abstract. Each record contains an array of collapsed charges (CHGn). Consider the example of a patient that had five laboratory tests from different revenue centers in the range of 300 to 319. CHG1, which was predefined as Laboratory Charges for revenue centers 300–319, would include the total charge for the five tests; however, there is no detail on which specific revenue centers were used. To combine data elements between this type of Charges file and the Core file, merge the files by the unique record identifier (KEY). There will be a one-to-one correspondence of records.

Refer to the Description of Data Elements online at the HCUP User Support Web site ([http://www.hcup-us.ahrq.gov](http://www.hcup-us.ahrq.gov)) for more information on the charge information from the different States.

The **AHA Linkage file** contains AHA linkage data elements that allow the SASD to be used in conjunction with the AHA Annual Survey of Hospitals’ data files. These files contain information about hospital characteristics and are available for purchase through the AHA. Because the data organizations in participating States determine whether the AHA linkage data elements may be released through the HCUP Central Distributor with the SASD, not all SASD include AHA linkage data elements.

The AHA Linkage file is a hospital-level file with one observation per hospital or facility. To combine encounter-level files with the hospital-level file (AHA Linkage file), merge the files by the hospital identifier provided by the data source (DSHOSPID), but be careful of the different levels of aggregation. For example, the Core file may contain 5,000 ambulatory surgery records for DSHOSPID “A,” but the Hospital file contains only 1 record for DSHOSPID “A.”

**What is the File Structure of the SASD in the 1997 Files?**

Based on the availability of data elements across States, data elements included in the SASD are structured as follows:

- Core file,
- State-specific file
- AHA Linkage file

The **Core file** contains core data elements that form the nucleus of the SASD. Core data elements meet at least one of the following criteria:

- Are available from all or nearly all data sources
- Lend themselves to uniform coding across sources
- Are needed for traditional applications (e.g., length of stay, patient age)

The **State-specific file** contains State-specific data elements intended for limited use. State-specific data elements meet at least one of the following criteria:

- Are available from a limited number of sources
- Do not lend themselves to uniform coding across sources
- Are not needed for traditional applications

The **AHA Linkage file** contains AHA linkage data elements that allow the SASD to be used in conjunction with the AHA Annual Survey of Hospitals’ data files. These files contain information about hospital characteristics and are available for purchase through the AHA. Because the data organizations in participating States determine whether the AHA linkage data elements may be released through the
HCUP Central Distributor with the SASD, not all SASD include AHA linkage data elements.

The Core and State-specific files are encounter-level files with one observation per abstract. The same record is represented in each file, but each contains different data elements. To combine data elements across encounter-level files, merge the files by the unique record identifier (SEQ_ASD). There will be a one-to-one correspondence of records.

The AHA Linkage file is a hospital-level file with one observation per hospital or facility. To combine encounter-level files with the AHA Linkage file, merge the files by the hospital identifier provided by the data source (DSHOSPID), but be careful of the different levels of aggregation. For example, the Core may contain 5,000 ambulatory surgery records for DSHOSPID "A," but the AHA Linkage file contains only 1 record for DSHOSPID "A."
GETTING STARTED

SASD Data Files are provided on CD-ROMs. The number of CD-ROMs depends on the State and year of data.

SASD Programs, Documentation, and Tools for all States and all years are available online at the HCUP User Support Web site at http://www.hcup-us.ahrq.gov.

SASD Data Files

To load SASD data onto your PC, you will need between one and four gigabytes of space available, depending on which SASD database you are using. Because of the size of the files, the data are distributed as self-extracting PKZIP compressed files. To decompress the data, follow these steps:

1. Create a directory for the State-specific SASD on your hard drive.
2. Copy the self-extracting data files from the SASD Data Files CD-ROM(s) into the new directory.
3. Unzip each file by running the corresponding *.exe file.
   - Type the file name within DOS or click on the name within Windows Explorer.
   - Edit the name of the "Unzip to Folder" in the WinZip Self-Extractor dialog to select the desired destination directory for the extracted file.
   - Click on the "Unzip" button.

The ASCII data files will then be uncompressed into this directory. After the files are uncompressed, the *.exe files can be deleted.

SASD Programs, Documentation, and Tools

The SASD programs, technical documentation files, and HCUP tools are available online via the Databases page at the HCUP User Support Web site (http://www.hcup-us.ahrq.gov/databases.jsp). The site provides important resources for SASD users, and all of the files may be downloaded free of charge. A summary is provided in Table 2.

The SASD programs include SAS-load and SPSS-load programs containing the programming code necessary to convert SASD ASCII files into SAS or SPSS.

The SASD technical documentation provides detailed descriptions of the structure and content of the SASD.

The HCUP tools include the Clinical Classifications Software (CCS) and general label and format information that are applicable to all HCUP databases.
### Table 2. SASD Database Documentation Available on HCUP-US

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<thead>
<tr>
<th>Restrictions on the Use of the SASD</th>
<th>Known Data Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>• State Data Use Agreement</td>
<td>• Includes State-specific information on databases that have been updated or have known data issues</td>
</tr>
<tr>
<td>• Requirements for Publishing with HCUP Data</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of the SASD Files</th>
<th>Load Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Introduction to the SASD (<em>this document</em>)</td>
<td>Programs to load the ASCII data files into statistical software:</td>
</tr>
<tr>
<td>• HCUP Quality Control Procedures—describes procedures used to assess data quality</td>
<td>• SAS Load Programs</td>
</tr>
<tr>
<td>• File Composition—describes types of hospitals and types of records included in each SASD (e.g., number of visits by year)</td>
<td>• SPSS Load Programs</td>
</tr>
<tr>
<td>• File Specifications—details data file names, number of records, record length, and record layout (e.g., file size by year)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Availability of Data Elements by State</th>
<th>HCUP Tools: Labels and Formats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Availability of States across all years</td>
<td>• Overview of Clinical Classifications Software (CCS)—a categorization scheme that groups ICD-9-CM diagnosis and procedure codes into mutually exclusive categories</td>
</tr>
<tr>
<td>• Availability of Data Elements by Year</td>
<td>• SAS Format Library Program creates formats to label all HCUP categorical data elements</td>
</tr>
<tr>
<td>• Availability of HCUP Revisit Variables across States and Years</td>
<td>• Labels for CCS diagnosis and procedure categories</td>
</tr>
<tr>
<td></td>
<td>• Labels for ICD-9-CM diagnoses and procedures</td>
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<table>
<thead>
<tr>
<th>Description of Data Elements in the SASD</th>
<th>SASD-Related Reports</th>
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</thead>
<tbody>
<tr>
<td>• Description of Data Elements for All States Across All Years—details uniform coding and State-specific idiosyncrasies</td>
<td><strong>HCUP Supplemental Files</strong></td>
</tr>
<tr>
<td>• Summary Statistics—lists means and frequencies on nearly all data elements</td>
<td>• American Hospital Association Linkage Files</td>
</tr>
<tr>
<td>• HCUP Coding Practices—describes how HCUP data elements are coded</td>
<td>• HCUP Variables for Revisit Analysis</td>
</tr>
<tr>
<td>• HCUP Hospital Identifiers—explains data elements that characterize individual hospitals</td>
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**Load Programs**

Programs to load the ASCII data files into statistical software:

- SAS Load Programs
- SPSS Load Programs

**HCUP Tools: Labels and Formats**

- Overview of Clinical Classifications Software (CCS)—a categorization scheme that groups ICD-9-CM diagnosis and procedure codes into mutually exclusive categories
- SAS Format Library Program creates formats to label all HCUP categorical data elements
- Labels for CCS diagnosis and procedure categories
- Labels for ICD-9-CM diagnoses and procedures

**SASD-Related Reports**

**HCUP Supplemental Files**

- American Hospital Association Linkage Files
- HCUP Variables for Revisit Analysis
OTHER HCUP PRODUCTS

Information on HCUP products and services is available on the AHRQ-sponsored HCUP User Support Web site at http://www.hcup-us.ahrq.gov.

DATABASES

For more information on all HCUP databases, visit the HCUP-US Web site (http://www.hcup-us.ahrq.gov) or contact the HCUP Central Distributor (detailed below).

The **National Inpatient Sample (NIS)** is the largest publicly available all-payer inpatient care database in the United States, yielding national estimates of hospital inpatient stays. Sampled from the State Inpatient Databases (SID), the NIS contains a systematic sample of discharges from all hospitals reporting to HCUP. The NIS contains charge information on all patients, regardless of payer, including individuals covered by Medicare, Medicaid, private insurance, and the uninsured.

The most recent version of the NIS (data year 2012) contains a sample of discharges from all HCUP-reporting hospitals, which totaled more than 4,300 in 2012. The National Inpatient Sample replaces the original NIS (the Nationwide Inpatient Sample) which was a sample of hospitals.

The **Nationwide Emergency Department Sample (NEDS)** is a unique and powerful database that yields national estimates of emergency department (ED) visits. The NEDS is the largest all-payer ED database in the United States, containing almost 26 million (unweighted) records for ED visits for over 950 hospitals sampled to approximate a 20 percent stratified sample of U.S. hospital-based EDs.

The **Kids' Inpatient Database (KID)** is a unique, nationwide database of hospital inpatient stays for children. The KID has been produced every 3 years since 1997. It was specifically designed to permit researchers to study a broad range of conditions and procedures related to child health issues.

The **State Inpatient Databases (SID)** are hospital inpatient databases from data organizations participating in HCUP. The SID contain the universe of the inpatient discharge abstracts in the participating HCUP States, translated into a uniform format to facilitate multistate comparisons and analyses.

The **State Ambulatory Surgery and Services Databases (SASD)** include encounter-level data for ambulatory surgeries and may also include various types of outpatient services such as observation stays, lithotripsy, radiation therapy, imaging, chemotherapy, and labor and delivery. The specific types of ambulatory surgery and outpatient services included in each SASD vary by State and data year. All SASD include data from hospital-owned ambulatory surgery facilities. In addition, some States include data from nonhospital-owned facilities.

The **State Emergency Department Databases (SEDD)** include data on all emergency department visits that do not result in an admission from data organizations in participating HCUP States. Information on patients initially seen in the emergency room and then admitted to the hospital is included in the SID. All of the databases include abstracts from hospital-affiliated ED sites. Composition and completeness of data files may vary from State to State.

**HCUP CENTRAL DISTRIBUTOR**

HCUP databases are available for purchase through the AHRQ-sponsored HCUP Central Distributor. All years of the NIS, KID, and NEDS are released through the Central Distributor. In addition, some States participating in HCUP make their SID, SASD, and/or SEDD available for purchase; availability and pricing may be found on the ordering Web site. If a State of interest does not release their full dataset through the Central Distributor, contact the **HCUP Partner** directly for the data's availability.
HCUP USER SUPPORT

HCUP User Support (HCUP-US) provides technical assistance to all HCUP users and is designed to facilitate the use of HCUP data, software tools, and products. The goals of this service are to increase awareness of the strengths and uses of HCUP data and to enhance the skills of individuals using the data for research, education, and/or policy analysis. A user-friendly Web site for HCUP-US is located at http://www.hcup-us.ahrq.gov. This site includes links to information on how to purchase and understand the HCUP databases, as well as links to HCUP User Support Services and an index of HCUP topics. For further information, consultants are available via telephone and e-mail to help in planning analytic research and to offer advice about appropriate uses of HCUP data.

HCUPnet

HCUPnet provides instant access to the largest set of publicly available, all-payer health care databases. It is a free, online query system based on data from the Healthcare Cost and Utilization Project (HCUP) that allows users to generate tables and graphs of national and regional statistics on hospital inpatient and emergency department utilization. Information includes: numbers and rates of inpatient stays and ED visits, deaths, charges, costs, trends, and breakdowns by patient and hospital characteristics. HCUPnet can also provide you with statistics based on the AHRQ Quality Indicators (QIs) which have been applied to the HCUP National (Nationwide) Inpatient Sample. These statistics provide insight into potential quality of care issues.

HCUPnet generates statistics from HCUP’s National (Nationwide) Inpatient Sample (NIS), the Kids’ Inpatient Database (KID), the Nationwide Emergency Department Sample (NEDS), the State Inpatient Databases (SID), and the State Emergency Department Databases (SEDD).

HCUPnet can be found at http://hcupnet.ahrq.gov/.

TOOLS

AHRQ Quality Indicators (QIs) are clinical performance measures for use with readily available inpatient data. Methods and software for the AHRQ Quality Indicators can be downloaded from http://www.qualityindicators.ahrq.gov/.

The following tools can all be found at the HCUP User Support Web site Tools and Software page at http://www.hcup-us.ahrq.gov/tools_software.jsp. Methods and software related to these products can be downloaded from the same Web page.

Clinical Classifications Software (CCS), are classification systems that group ICD-9-CM diagnoses and procedures into a limited number of clinically meaningful categories. CCS is also available for ICD-10 diagnoses, CPT and HCPCS procedures, and ICD-9-CM diagnoses related to mental health and substance use.

Comorbidity Software assigns variables that identify comorbidities in hospital discharge records using ICD-9-CM diagnosis codes.

Procedure Classes identify whether a procedure is (1) diagnostic or therapeutic, and (2) minor or major in terms of invasiveness and/or resource use.

Cost-to-Charge Ratio (CCR) Files are hospital-level files designed to supplement the data elements in the NIS and SID databases.
**Chronic Condition Indicator** provides users an easy way to categorize ICD-9-CM diagnosis codes into one of two categories: chronic or not chronic. The tool can also assign ICD-9-CM diagnosis codes into 1 of 18 body system categories.

**Utilization Flags** reveal additional information about use of health care services by combining information from Uniform Billing (UB-92) revenue codes and ICD-9-CM procedure codes to create flags (indicators) of utilization. Use of procedures and services such as intensive care unit (ICU), coronary care unit (CCU), neonatal intensive care unit (NICU), and specific diagnostic tests and therapies can be assessed with these Utilization Flags.

**PUBLICATIONS**
Publications using HCUP data or describing methods for using HCUP data can be found at [http://www.hcup-us.ahrq.gov/reports.jsp](http://www.hcup-us.ahrq.gov/reports.jsp).

**HCUP Statistical Briefs** are Web-based reports that present simple, descriptive statistics on a variety of focused topics such as hospital admissions through the ED, hospitalizations among the uninsured, women and heart disease, hospital stays associated with alcohol abuse, and racial and ethnic disparities in potentially preventable hospitalizations.

**HCUP Methods Series** features a broad array of methodological reports on the HCUP databases and software tools. Topics include how to use the NIS for reporting trends, how to properly calculate variance estimates using the NIS, an evaluation of linking patients across hospital stays in the SID, evaluations of HCUP ED and ambulatory surgery data, an evaluation of E code reporting across the HCUP States, and creation of utilization flags based on UB-92 revenue codes.

**HCUP Fact Books** report aggregate statistics and detailed analyses using HCUP data. The Fact Books can be viewed online or can be requested from the AHRQ Publications Clearinghouse at (800) 358-9295. You can also send a postcard requesting these reports by writing to: AHRQ Publications Clearinghouse, P.O. Box 8547, Silver Spring, MD 20907.

**HCUP Database Reports** are specific to the design and use of the HCUP databases. These reports include descriptions of the design of each database, comparisons of HCUP data with other data sources, evaluations of data quality, and descriptions of database composition.

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This Data Use Agreement ("Agreement") governs the disclosure and use of data in the HCUP State Databases from the Healthcare Cost and Utilization Project (HCUP) which are maintained by the Center for Delivery, Organization, and Markets (CDOM) within the Agency for Healthcare Research and Quality (AHRQ). The HCUP State databases include the State Inpatient Databases (SID), State Ambulatory Surgery and Services Databases (SASD), and State Emergency Department Databases (SEDD). Any person ("the data recipient") seeking permission from AHRQ to access HCUP State Databases data must sign and submit this Agreement to AHRQ or its agent, and complete the online Data Use Agreement Training Course at http://www.hcup-us.ahrq.gov, as a precondition to the granting of such permission.

Section 944(c) of the Public Health Service Act (42 U.S.C. 299c-3(c)) ("the AHRQ Confidentiality Statute"), requires that data collected by AHRQ that identify individuals or establishments be used only for the purpose for which they were supplied. Pursuant to this Agreement, data released to AHRQ for the HCUP Databases are subject to the data standards and protections established by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) (P.L. 104-191) and implementing regulations ("the Privacy Rule"). Accordingly, HCUP Databases data may only be released in "limited data set" form, as that term is defined by the Privacy Rule, 45 C.F.R. § 164.514(e). HCUP data may only be used by the data recipient for research which may include analysis and aggregate statistical reporting. AHRQ classifies HCUP data as protected health information under the HIPAA Privacy Rule, 45 C.F.R. § 160.103. By executing this Agreement, the data recipient understands and affirms that HCUP data may only be used for the prescribed purposes, and consistent with the following standards:

No Identification of Persons–The AHRQ Confidentiality Statute prohibits the use of HCUP data to identify any person (including but not limited to patients, physicians, and other health care providers). The use of HCUP Databases data to identify any person constitutes a violation of this Agreement and may constitute a violation of the AHRQ Confidentiality Statute and the HIPAA Privacy Rule. This Agreement prohibits data recipients from releasing, disclosing, publishing, or presenting any individually identifying information obtained under its terms. AHRQ omits from the data set all direct identifiers that are required to be excluded from limited data sets as consistent with the HIPAA Privacy Rule. AHRQ and the data recipient(s) acknowledge that it may be possible for a data recipient, through deliberate technical analysis of the data sets and with outside information, to attempt to ascertain the identity of particular persons. Risk of individual identification of persons is increased when observations (i.e., individual discharge records) in any given cell of tabulated data is less than or equal to 10. This Agreement expressly prohibits any attempt to identify individuals, and information that could be used to identify individuals directly or indirectly shall not be disclosed, released, or published. Data recipients shall not attempt to contact individuals for any purpose whatsoever, including verifying information supplied in the data set. Any questions about the data must be referred exclusively to AHRQ. By executing this Agreement, the data recipient understands and agrees that actual and considerable harm will ensue if he or she attempts to identify individuals. The data recipient also understands and agrees that actual and considerable harm will ensue if he or she intentionally or negligently discloses, releases, or publishes information that identifies individuals or can be used to identify individuals.

Use of Establishment Identifiers–The AHRQ Confidentiality Statute prohibits the use of HCUP data to identify establishments unless the individual establishment has consented. Permission is obtained from the HCUP data sources (i.e., state data organizations, hospital associations, and data consortia) to use the identification of hospital establishments (when such identification appears in the data sets) for research, analysis, and aggregate statistical reporting. This may include linking institutional information from outside data sources with HCUP data to conduct research that may include analysis and aggregate statistical reporting.
sets for these purposes. Such purpose does not include the use of information in the data sets concerning individual establishments for commercial or competitive purposes involving those individual establishments, or to determine the rights, benefits, or privileges of establishments. Data recipients are prohibited from identifying establishments directly or by inference in disseminated material. In addition, users of the data are prohibited from contacting establishments for the purpose of verifying information supplied in the data set. Any questions about the data must be referred exclusively to AHRQ. Misuse of identifiable HCUP data about hospitals or any other establishment constitutes a violation of this Agreement and may constitute a violation of the AHRQ Confidentiality Statute.

The undersigned data recipients provide the following affirmations concerning HCUP data:

Protection of Individuals

- I will not release or disclose, and will take all necessary and reasonable precautions to prohibit others from releasing or disclosing, any information that directly or indirectly identifies persons. I will not release or disclose information where the number of observations (i.e., individual discharge records) in any given cell of tabulated data is less than or equal to 10.

- I will not attempt to link, and will prohibit others from attempting to link, the discharge records of persons in the data set with individually identifiable records from any other source.

- I will not attempt to use and will take all necessary and reasonable precautions to prohibit others from using the data set to contact any persons in the data for any purpose.

Protection of Establishments

- I will not publish or report, through any medium, data that could identify individual establishments directly or by inference.

- When the identities of establishments are not provided in the data sets, I will not attempt to use and will take all necessary and reasonable precautions to prohibit others from using the data set to learn the identity of any establishment.

- In accordance with the AHRQ Confidentiality Statute, I will not use and will take all necessary and reasonable precautions to prohibit others from using the data set concerning individual establishments: (1) for commercial or competitive purposes involving those individual establishments; or (2) to determine the rights, benefits, or privileges of individual establishments.

- I will not contact and will take all necessary and reasonable precautions to prohibit others from contacting establishments identified in the data set to question, verify, or discuss data in the HCUP databases.

Limitations on the Disclosure of Data and Safeguards

- I, the undersigned data recipient, acknowledge and affirm that I am personally responsible for compliance with the terms of this Agreement, to the exclusion of any other party, regardless of such party’s role in sponsoring or funding the research that is the subject of this Agreement.

- I will not release or disclose, and will prohibit others from releasing or disclosing, the data set or any part to any person who is not an employee, member, or contractor of the organization (specified below), except with the express written approval of AHRQ. I acknowledge that when releasing or disclosing the data set or any part to others in my organization, I retain full responsibility for the privacy and security of the data and will prohibit others from further release or disclosure of the data.
• I will require others employed in my organization who will use or will have access to HCUP data to become authorized users of the data set by signing a copy of this data use agreement and completing the online Data Use Agreement Training Course at http://www.hcup-us.ahrq.gov. Before granting any individual access to the data set, I will submit the signed data use agreements to the address at the end of this Agreement.

• I will ensure that the data are kept in a secured environment and that only authorized users will have access to the data.

• I will not use or disclose and I will prohibit others from using or disclosing the data set, or any part thereof, except for research, analysis, and aggregate statistical reporting, and only as permitted by this Agreement.

• I acknowledge and affirm that interpretations, conclusions, and/or opinions that I reach as a result of my analyses of the data sets are my interpretations, conclusions, and/or opinions, and do not constitute the findings, policies, or recommendations of the U.S. Government, the U.S. Department of Health and Human Services, or AHRQ.

• I will indemnify, defend, and hold harmless AHRQ and the data organizations that provide data to AHRQ for HCUP from any or all claims and losses accruing to any person, organizations, or other legal entity as a result of violation of this agreement. This provision applies only to the extent permitted by Federal and State law.

• I will acknowledge in all reports based on these data that the source of the data is the specific state(s) or data organization(s) that submitted data to HCUP, e.g., “state name(s), State Inpatient Databases (SID), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality.” Substitute State Ambulatory Surgery and Services Databases (SASD) or State Emergency Department Databases (SEDD), as appropriate.

• I agree to report the violation or apparent violation of any term of this Agreement to AHRQ without unreasonable delay and in no case later than 30 calendar days of becoming aware of the violation or apparent violation.

Terms, Breach, and Compliance

Any violation of the terms of this Agreement shall be grounds for immediate termination of this Agreement. AHRQ shall determine whether a data recipient has violated any term of the Agreement. AHRQ shall determine what actions, if any, are necessary to remedy a violation of this Agreement, and the data recipient(s) shall comply with pertinent instructions from AHRQ. Actions taken by AHRQ may include but not be limited to providing notice of the termination or violation to affected parties and prohibiting data recipient(s) from accessing HCUP data in the future.

In the event AHRQ terminates this Agreement due to a violation, or finds the data recipient(s) to be in violation of this Agreement, AHRQ may direct that the undersigned data recipient(s) immediately return all copies of the HCUP State Databases to AHRQ or its designee without refund of purchase fees.
Acknowledgment

I understand that this Agreement is requested by the United States Agency for Healthcare Research and Quality to ensure compliance with the AHRQ Confidentiality Statute. My signature indicates that I understand the terms of this Agreement and that I agree to comply with its terms. I understand that a violation of the AHRQ Confidentiality Statute may be subject to a civil penalty of up to $10,000 under 42 U.S.C. 299c-3(d), and that deliberately making a false statement about this or any matter within the jurisdiction of any department or agency of the Federal Government violates 18 U.S.C. § 1001 and is punishable by a fine of up to $10,000 or up to five years in prison. Violators of this Agreement may also be subject to penalties under state confidentiality statutes that apply to these data for particular states.

Signed: _____________________________________________  Date: _________________________
Print or Type Name: ____________________________________________________________________
Title: ______________________________________________________________________________
Organization: _________________________________________________________________________
Address: _____________________________________________________________________________
Address: _____________________________________________________________________________
City: _____________________________________  State: _________  ZIP Code: _______________
Phone: ___________________________________  Fax: ____________________________________
E-mail:  ____________________________________________________________________________

The information above is maintained by AHRQ only for the purpose of enforcement of this Agreement.

Note to Purchaser: Shipment of the requested data product will only be made to the person who signs this Agreement, unless special arrangements that safeguard the data are made with AHRQ or its agent.

Submission Information

Please send signed HCUP Data Use Agreements and proof of online training to:

    HCUP Central Distributor
    Social & Scientific Systems, Inc.
    8757 Georgia Avenue, 12th Floor
    Silver Spring, MD 20910
    E-mail: HCUPDistributor@AHRQ.gov
    Fax: (866) 792-5313

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0935-0206. The time required to complete this information collection is estimated to average 30 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: AHRQ, 540 Gaither Road, Attn: Reports Clearance Officer, Rockville, Maryland 20850.

OMB Control No. 0935-0206 expires 12/31/2015.